

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1-13. (Canceled).

14. (Previously Presented) The system of claim 25, wherein the determiner determines the modulation level using a number having an integer square root.

15. (Previously Presented) The system of claim 25, wherein the determiner determines the modulation level using a number not having an integer square root.

16. (Previously Presented) The system of claim 25, wherein the modulator modulates the transmission data by arranging signal points such that a difference between the number of signal points in an I-axis direction and the number of signal points in a Q-axis direction is minimum.

17. (Previously Presented) The system of claim 25, wherein the modulator modulates the transmission data using a modulation

scheme in which a phase direction is identified by an axis that crosses an origin point in a signal space diagram.

18. (Previously Presented) The system of claim 17, wherein the modulator modulates the transmission data using a modulation scheme in which an amplitude direction is identified by an axis that crosses an origin point in a signal space diagram.

19. (Previously Presented) The system of claim 17, wherein the detector outputs a bit without an error as an effective bit transmitted from the transmitting apparatus.

20. (Previously Presented) The system of claim 25, wherein, upon a transmission of a pilot signal, the transmitter transmits the pilot signal arranged in the middle of a maximum amplitude in a signal space diagram of the modulation scheme of the largest modulation level determined by the determiner.

21. (Previously Presented) The system of claim 25, wherein the receiving apparatus further comprises a repeat requester that sends a repeat request to the transmitting apparatus according to an error detection result, per error detecting unit.

22. (Previously Presented) The system of claim 21, wherein the determiner determines the modulation level based on channel quality estimated from the repeat request.

23-24. (Canceled).

25. (Currently Amended) An adaptive modulation communication system comprising a transmitting apparatus and a receiving apparatus, wherein:

(a) the transmitting apparatus comprises:

a determiner that determines a modulation level for modulating transmission data;

an adder that adds an error detecting bit to the transmission data per predetermined error detecting unit sectioned in a predetermined length in the transmission data;

a modulator that modulates the bits ~~the transmission data~~ with a number of error detecting units in accordance with the modulation level by a modulation scheme corresponding to the modulation level so that a bit position is specific to each of the error detecting units; and

a transmitter that transmits the modulated signal to the receiving apparatus; and

(b) the receiving apparatus comprises:

a receiver that receives the signal transmitted from the transmitting apparatus;

a plurality of demodulators that demodulate the signal based on regions of demodulation patterns to which signal points of bits belong, using the demodulation patterns different between the error detecting units, respectively; and

a plurality of detectors that perform error detection on the demodulated signal for each of the error detecting units to obtain reception data.

26-27. (Canceled).

28. (New) A transmitting apparatus comprising:

a determiner that determines a modulation level for modulating transmission data;

an adder that adds an error detecting bit to the transmission data per error detecting unit sectioned in a predetermined length in the transmission data;

a modulator that modulates the bits with a number of error detecting units in accordance with the modulation level by a modulation scheme corresponding to the modulation level so that a

bit position is specific to each of the error detecting units;
and

a transmitter that transmits the modulated signal to a
communicating party.

29. (New) A receiving apparatus comprising:

a receiver that receives the signal transmitted from the
transmitting apparatus of claim 28;

a plurality of demodulators that demodulate the signal based
on regions of demodulation patterns to which signal points of
bits belong, using the demodulation patterns different between
the error detecting units, respectively; and

a plurality of detectors that perform error detection on the
demodulated signal for each of the error detecting units to
obtain reception data.